Smart Strategies for Infrastructure:
Getting it Right for Taxpayers

TAXPAYERS for COMMON SENSE

November 2018

"Infrastructure Week" has become a punchline in Washington: there have been half a dozen or so weeks identified for the celebration of our nation's infrastructure, yet we have seen no new major initiatives.[1] But one of the reasons there have been so many is that there is bipartisan interest in the issue and more importantly, a need to address it. President Trump ran on it,[2] Congressional Democrats have been clamoring for it,[3] and Congressional Republicans are finding few reasons to overtly oppose investment. Whoever wins control in November, infrastructure remains an area of possible collaboration.

So much of the discussion is about new, innovative financing structures, or how to leverage private investment, or what type of bond will offer which incentives. The president's plan claims that $200 billion federal dollars will yield a total of $1.5 trillion in infrastructure investment.[4] All of this is important and should not be overlooked. But at the end of the day, the most basic question is: what infrastructure should get built and by whom?

Taxpayers for Common Sense has a long history of cutting through the noise to focus on the basics. Don't use gimmicks, like paying for projects now with money purportedly raised down the road. If we don't fully pay for projects now, we'll just add them to our debt and pay for them later. Don't use political favoritism to pick projects. Prioritizing systems with transparent criteria and metrics that allocate funds on the basis of merit, competition, or formula is the only responsible way to go.

Focusing on the basics and keeping any infrastructure plan guided by clear, easy principles, Taxpayers for Common Sense offers this paper for the upcoming 116th Congress and 45th President of the United States as they drive their way toward any new infrastructure bill. Here are some basic principles to follow:

Smart Strategies for Infrastructure

Remove what doesn't work: Sometimes the best choice is simply to cut losses and stop paying to maintain infrastructure that doesn't work. Whether that's dams on unused waterways or federal facilities that should be turned over to state or local interests, Congress should stop supporting projects that simply don't work or are not in the federal interest.

Fix it First: Taxpayers receive a much greater return on their public dollar investment when current infrastructure is fixed and improved before it falls into deep disrepair. Congress should focus on repairing what we already have before starting new plans.

Prioritize Spending: Congress must prioritize its choices, rather than attempting to be all things to all people. This includes selecting which kinds of projects are an appropriate use of federal funds, setting clear formulas that seek the greatest return on investment, and avoiding the allocation of funding based on political power.

User Pays: Wherever possible, the user of a road, mass transit, or bridge should pay for most or all of the cost of that infrastructure. This helps keep costs in line with revenues and prevents accounting gimmicks.

Rebuild Better and Smarter: Too often after a disaster there is a rush to send cash and rebuild right away, the same way. Prior planning for inevitable disasters must be coupled with rigorous requirements to (re)build in ways that reduce loss of life and property as well as infrastructure damage in future disasters.

These basic principles, whether the topic is roads, bridges, aviation, water projects, mass transit, or others, will be important for any infrastructure program that comes out of Congress and is signed into law by President Trump.

Remove What Doesn't Work

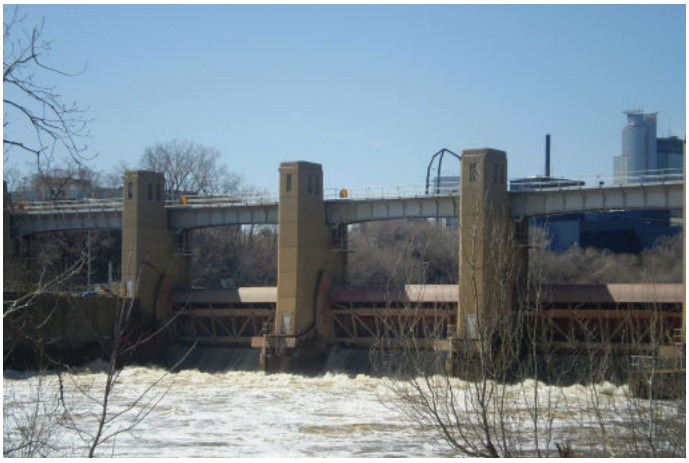
One of the hardest parts of infrastructure is the tricky economic (and too often political) process of deciding which projects to fund and which ones to leave for another day. New roads, bridges, transit projects, and more are an easy for way for politicians to show they're actively involved with their communities. New projects are exciting too, as they can be the harbinger of growth: maybe if you add new lane miles to a highway, a new company will move in with the jobs and extra development that can follow.[5] But it's never quite this easy.

While communities are quick to think up new infrastructure projects, the less popular but certainly more cost-effective question is: what infrastructure isn't working? Outdated and ineffective small flood control dams, roads that constantly have to be repaired due to coastal erosion, and poorly designed and hazardous at-grade rail crossings are just a few common examples where the best decision for a community, and the federal government, is simply to remove what doesn't work.

There are several reasons these kinds of projects can keep living past their useful life. Sometimes decision makers can get tied to the costs already sunk into a project. For example, removing a dam altogether when it has been there for years can feel like a waste of money. Better to invest a little more in it, the thinking goes, and preserve it for another day. But in many cases, after decades of existence, the reservoir behind the dam has largely silted up, removing much of the flood control or water supply benefits. In that case, restoring function would require a costly dredging project to recreate what nature took hundreds of years to do: create a good dam site.

Another factor that often arises in deciding whether infrastructure is cost-effective to maintain rather than remove is the ongoing costs to society from the infrastructure itself. At-grade rail crossings carry the real risk of costly or lethal accidents; run down dams may harm fisheries at the same time that they no longer provide flood control or water supply benefits; and poorly located coastal roads may actually contribute to erosion problems for neighboring properties. In these cases, removal of the infrastructure not only reduces maintenance costs, but eliminates other hazards, and their associated costs, as well.

When making infrastructure decisions though, it doesn't matter how much was spent on the project in the past. That money is already gone—in economic terms a sunk cost. Instead, the question is how much future benefit will be gained against current and future costs? Not every infrastructure project is worth what we pay for it, and the federal government should be clearer about what projects it supports that fall into this category.

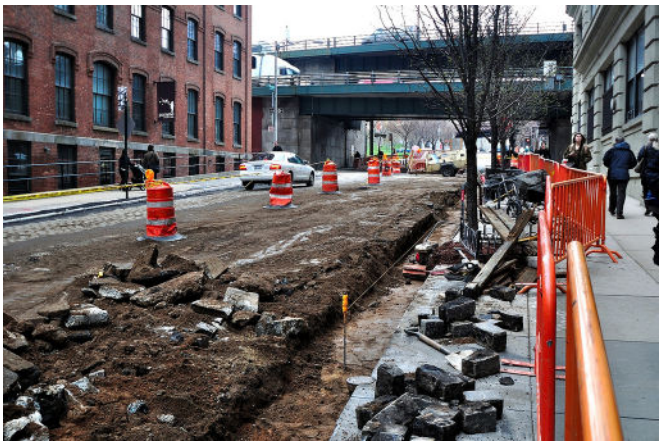


Lower St. Anthony Lock and Dam, Mississippi River, Minneapolis, MN, is being considered for disposal from federal inventory

For example, in 2016, Congress wisely dropped dams on the Green and Barren Rivers in Kentucky as part of the Water Resources Development Act reauthorization.[6] These long unused dams served no purpose remaining on federal rolls.[7] Unclear wording from the reauthorization bill hampered the transfer, but the recently enacted America's Water Infrastructure Act will allow the U.S. Army Corps of Engineers (Corps) to take the dams off of its books and transfer authority to the state.[8] This is a good strategy, and Congress should find other dams and infrastructure it can drop from the federal rolls and remove from federal responsibility.

Focusing Federal Priorities

Another way to "remove what doesn't work" is to be clearer about what kinds of projects the federal government will and will not support. Because of its massive role in commerce between states and its primary role in originally building and planning the interstates, maintenance of the interstate highway system has always been a logical role of the federal government. For instance, the Corps is conducted a disposal study for the little used, three furthest upstream lock and dams on the Mississippi River: Upper and Lower St. Anthony Falls and Lock and Dam 1 in Minneapolis, MN.



Construction on Washington Street, New York, NY

Whatever the federal government does, it should do well and be targeted. There are always pushes for federal support in new areas that, in most cases, should be resisted. For instance, a proposal put out by Senate Democrats to answer President Trump's call on infrastructure includes federal funding for local schools, typically something that's funded by communities.[9] Similarly, wastewater and drinking water projects are suggested targets of federal funding. Historically these kinds of projects get some federal support through revolving loan funds, but they are mostly prioritized and funded at the state and local level with ratepayers of those services.

Beach replenishment is another area of ongoing financial erosion. The federal government has been asked to foot a large part of the bill to replenish local beaches with sand.[10] Most often justified on the economic basis of protecting beachfront property, finding good sources of sand is getting more expensive and the economic justification is getting less and less clear. The issue is only growing worse with additional and more intensive coastal development and increasingly frequent extreme weather events such as hurricanes and tropical storms which exacerbate beach erosion.[11] The federal government should devolve most of this responsibility to local and state communities where most of the benefit resides and let them decide if adding new sand every year is worth the cost. If those communities don't think the cost is worth it, they should stop replenishing these projects which don't work.

Setting clear priorities in any bill passed by Congress on what types of infrastructure the federal government will or won't get involved with is an important step toward containing costs and financial liabilities. Congress should focus on the kinds of projects that make the most sense for the federal government and leave the rest to states, communities, and private interests.

Fix It First

First, fix what's broken. Before identifying new projects in need of federal dollars, identify what needs to be brought back up to standard. This simple rule can go a long way toward ensuring proper, effective spending of taxpayer dollars.

There are a couple of reasons why this is a good strategy for the federal government as well as states and localities. There's a lot of uncertainty over what the real benefits will be of brand new infrastructure projects. Building new bridges, constructing new lanes to existing highways, or expanding a public transit system requires predicting just how populations will grow, how the

roads will get used, and what modes of transportation will be most popular in ten, twenty, or thirty years. It's a tough job, and when it's wrong, the rosy benefits can miss the greater-than-expected costs of a project.

There's considerably less uncertainty over the benefits of fixing currently used infrastructure. We can be more confident that a certain section of worn-out interstate used consistently for the past forty years will continue to be in demand in the future. If we're going to keep using it, then eventually it will need repair. The question isn't if we will fix it but when.

It's also cheaper to maintain infrastructure that's already in decent shape. Federal dollars directed towards repair can pick the cost optimal moment to fix up our roads, saving money over the life of the project. For example, pavements are more expensive to fix dollar for dollar when they are in "serious" disrepair rather than just "fair" condition. The longer pavement goes without being maintained the more expensive it gets to repair. One study of roads in New York found that delaying $1 worth of pavement rehabilitation can end up costing $4, $5, or even more later on.[12] Delaying maintenance on roads also wears down cars faster, meaning extra repairs and additional costs to taxpayers.[13] Consistently dedicating dollars to maintenance can prevent costs from escalating. When federal dollars focus on a fix-it-first approach, we can be strategic in how and when projects get picked.

Fixing infrastructure first isn't very controversial either. There's agreement across the political spectrum that repair and maintenance are a best-case use of federal transportation dollars. Aaron Renn, a senior fellow at the free-market oriented Manhattan Institute, penned an article in March of this year—"A Tip for Infrastructure Builders: Fix It First"—calling for investment in existing infrastructure before moving onto new projects.[14] Matthew E. Kahn and David M. Levinson advocated for the fix-it-first approach in a paper for the center-left Brookings Institution in 2011, as did the Obama Administration in 2013.[15] Everyone knows these costs will come due eventually, so there's easy consensus on making them a priority.

Wilson Dam, Tennessee River, Florence, AL

Taxpayers for Common Sense and Smart Growth America released a report in 2014—*Repair Priorities: 2014 Update*—detailing exactly what kinds of repairs were needed in states across the U.S.[16] In it, we advocated for "raising the public profile of repair projects, using good asset management practices, focusing repair investments on the most heavily used roads, setting aggressive targets for pavement conditions, and using cost-benefit analysis to prioritize road investments."[17] These continue to be good strategies for the federal government and states to adopt.

In the case of federal dams, the Corps of Engineers, Bureau of Reclamation, and Natural Resources Conservation Service all maintain active dam safety programs—reviewing the condition of

Public-Private Partnerships

One frequently cited solution to incentivize new investment in infrastructure is public-private partnerships, or P3s. Like most financing options, they have their pluses and minuses. When built right, these partnerships may very well work to incorporate the benefits and innovation of the private sector. President Trump's campaign thought so; it released a detailed white paper in the closing days of the 2016 campaign arguing that P3s would unlock major infrastructure investment.[18] Other organizations inside the Beltway think P3s could add a lot of value.[19]

P3s need a Goldilocks type of project to be most useful, though.[20] These projects generally require some sort of revenue generating mechanism (toll or user fee) or direct public payments to get the private partner an attractive return on investment. We definitely support a user pays principle (see below), but not every kind of infrastructure project can offer those sorts of direct returns needed for a private company. The financing agreement can get even more complicated when the infrastructure in question is already built and simply needs repair.

Experience shows that P3s have the potential to leave the downside risk on the taxpayer with the potential rewards going to the private sector. While private companies can be made to have better incentive structures that keep costs low, private firms are also incentivized to push long-term liabilities and risks onto the government while ensuring any short-term financial rewards flow back to the private firms in question. P3s also have greater financing costs, since they must borrow at private sector rates while the federal government and states can borrow at lower, governmental rates.

There's scant evidence that P3s have been any sort of silver bullet so far. A recent Congressional Research Service report cites a total of 32 transportation P3s taking place between 1993 and September of 2017, with total project costs at $45 billion.[21] P3 infrastructure spending is a mere fraction of the trillions of dollars in federal transportation expenditures over the same period. A review by the Congressional Budget Office found there was "little evidence that public-private partnerships provide additional resources for roads except in cases in which states or localities have chosen to restrict spending through self-imposed legal constraints or budgetary limits." Unsurprisingly, not every P3 project has succeeded: "some of the projects that have been financed through tolls have failed financially because the private-sector partners initially overestimated their revenues and as a result have been unable to fully repay their projects' debts."[22]

"Fix it first" is an important principle, one which might have helped prevent us from getting into our current infrastructure mess in the first place. We shouldn't be surprised that roads and bridges will wear down with time, and we should plan financially for fixing them up. That mission can start today.

potentially hazardous dams. In some cases, that review may lead to the conclusion that a hazardous dam no longer serves its purposes and should be removed, but where repair is warranted, it should receive priority. Assuring that dams are safe obviously serves public safety; the same is true for bridge safety programs. These obvious hazards illustrate the benefits of prioritizing repairs over new construction.

Prioritize Spending

After we've removed the infrastructure projects that don't work and fixed the ones that do—a priority setting in its own right—we need to set clear priorities on how other funds are spent. There will always be an appetite for projects that exceeds the federal dollars to fund them. Merit should trump political muscle when it comes to project funding. Making no prioritization decision—driven by clear cost-benefit analysis and seeking the highest return on investment—ends up being its own kind of bad priority making.

Army Corps of Engineers

The Corps water resource projects are an excellent of example of what happens when Congress doesn't prioritize. According to the Congressional Research Service "the agency identified a $96 billion backlog of authorized construction projects." A backlog the agency will have a hard time reducing, given its FY18 and FY19 construction funding levels were $2.1 and $2.2 billion

dollars respectively.[23] Congress has repeatedly avoided setting clearer priorities or better rules of the road for the Corps, preferring to authorize politically motivated projects that may never happen.

One report cited by the Government Accountability Office (GAO) found that the massive backlog has serious consequences, complicating "the budgeting process and provid[ing] an incentive to spread funding widely, over many projects, rather than to complete high priority projects that have already begun construction."[24] A regular inability to address this backlog, or more clearly instruct the Corps on how to make those decisions for themselves, has hurt the Corps and the water resource projects it is intended to address.

Congress' most recent reauthorization of the Water Resource Development Act came in mid-October with the enactment of the America's Water Infrastructure Act of 2018.[25] Unfortunately, the law continued down the primrose path of letting non-federal interests dictate the direction and priorities of the federal program. Several provisions enable non-federal interests in many instances to—in essence—"loan" the Corps funds to study, complete, or even operate federal projects. These "loans" reduce oversight and drive the federal program instead of Congress and the administration. While non-federal sponsors need to play a key role in developing and implementing projects, federal tax dollars must only be spent on projects that meet national interests. Lawmakers need to develop clear and measurable criteria that forces the Corps to prioritize spending on the most critical projects and make predictable decisions about allocation of resources.

National Infrastructure Bank

One perennially offered solution to our transportation funding woes is a National Infrastructure Bank, or NIB. President Obama floated one during his presidency several times, Secretary Clinton backed a bank during her 2016 presidential run, and now Secretary of the Treasury Steve Mnuchin explored the option during the administration's transition.[26, 27] Several bipartisan proposals for an NIB have come out of the House in recent years, including from Reps. DeLauro (D-CT) and Faso (R-NY) in 2017.[28] The idea has been around for a while.

These proposals and discussions have varied meaningfully in the details. But generally speaking, an NIB would review proposed projects, make investment decisions based on the quality of the proposals it receives, and create a portfolio of investments to pay for a variety of the most worthy projects. Local, state, and federal governments, private sector sponsors, or partnerships between these would apply for funding, and proposals would undergo cost/benefit analysis and have to meet performance criteria, which could include congestion relief, multimodalism, safety, environmental benefit, capacity expansion, alternative energy, or system maintenance and upkeep.

Just as with public-private partnerships, an NIB is no silver bullet. There are serious questions about how any NIB would actually work and whether it could do a better job aligning private investment with revenues that can be captured. There are also serious questions about what would happen in the event of a default. No matter what any legislation might say, anything called a "National Infrastructure Bank" will likely appear to have the backing of the full faith and credit of the U.S. Treasury. That puts federal taxpayers on the line in the case of a default, something the federal government can ill-afford with its persistent deficits.

As with many innovative financing plans, the devil is in the details. Perhaps there is some perfect NIB-type proposal that could help the federal government prioritize transportation funding decisions on a sensible, formula-driven model rather than political muscle. But we're skeptical that this is any sort of easy solution to Congress' transportation quandary.

User Pays

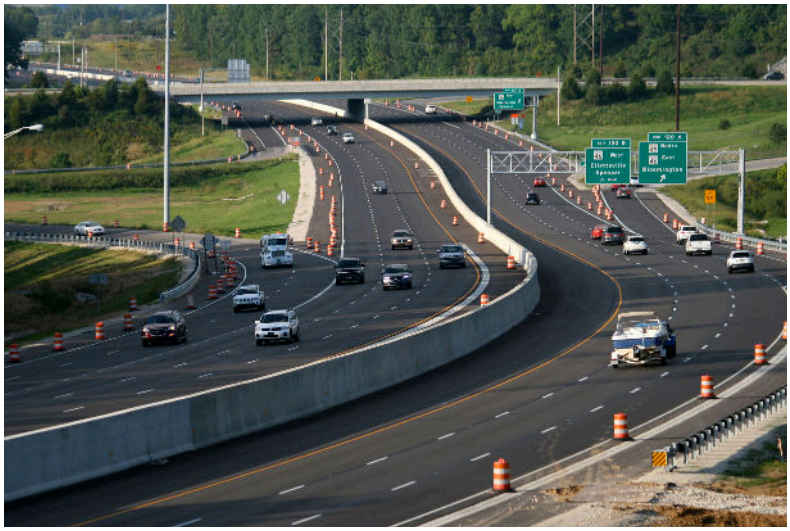
The user pays principle is widely accepted across the political spectrum as a smart and fair way to pay for certain kinds of government services. Some parts of the government cannot practically be charged to those it directly benefits, or else they simply benefit everyone (such as defense). In the case of defense, general tax revenues from the Treasury are used to fund defense-related activities.

Many services provided by the government can, and should, be paid for by the user. Doing so has several benefits. It ties the economics costs to those who get the most benefit. It keeps government budgeteers closely attuned to the real costs of programs. And it sends better market signals out into the economy, helping individuals or businesses to make the most efficient, price-effective decision.

These and other benefits make the user pays principle an important touchstone, especially when it comes to infrastructure. The costs of a road, bridge, transit line, or other piece of infrastructure are fairly easy to determine. The major beneficiaries of this infrastructure are also easy to find: they travel over the bridge, ride the transit line, or drive on the road to the airport. Though some payment schemes are more or less effective—a gated toll on a bridge can slow down traffic and the gas tax charges older, less fuel-efficient cars more than newer cars to travel the same amount of road—the general principle of user pays is simply budgeting 101.

Highway Trust Fund

The best-known case of user pays, and the one program most chronically in need of reform, is the Highway Trust Fund (HTF). The HTF is the primary financing mechanism for the nation's surface transportation. It funds a variety of highway and transit programs, including formula based state grants and specific projects and programs as directed by Congress. It has been primarily funded through taxes on gasoline, diesel, and other transportation fuels, though it also gets some funds from certain sales, such as trailers and tires.[29]



Interstate 69 Construction Project, Bloomington, IN

Prior to 2001, the trust fund was relatively stable, with the fees from gas taxes and other revenue meeting or exceeding spending targets. Since 2008 though, over $135 billion has been transferred from the Treasury's general fund to the HTF.[30] This breakdown of the user pays principle has largely centered on the gas tax. Last increased in 1993 to 18.4 cents per gallon, the primary funding stream for the HTF hasn't maintained its purchasing power. This is for several reasons. Most notably cars have become more efficient and generate less gas tax revenue per mile travelled, and road maintenance and construction costs have risen faster than inflation generally. Increasing federal gas taxes has been so optically and politically unpopular that Congress has preferred to simply transfer money from the Treasury or use budget gimmicks—adding to the deficit—rather than dealing with the problem.

This stalemate is simply untenable and bad budgeting. There are a variety of suggested reforms to the highway trust fund fees, including levying a new vehicle miles traveled (VMT) fee or altering the structure of the gas tax.[31] The question is not if the taxes will ultimately get levied but when. As Congress transfers over $135 billion from the general fund to the HTF, we all end up paying for the roads every April 15th. These transfers either crowd out other federal spending, increase taxes, or increase our debt and deficits. Taxpayers will inevitably pay these costs down the road and increase borrowing costs for the Treasury today.

If Congress brings the Highway Trust Fund back in line with the user pays principle, drivers will experience the real cost of driving. Or there will be fewer dollars going to road and transit construction, forcing lawmakers and users to live within the gas tax means. At the very least it will help everyone, from Congress to taxpayers, to deal with and plan for the true cost of building, fixing, and maintaining our nation's roads.

The Harbor Maintenance Trust Fund

The Harbor Maintenance Trust Fund (HMTF) also suffers from user pays principle problems. Established in 1986, the HMTF funds maintenance dredging in the nation's harbors. Revenues are generated through an *ad valorem* tax on the value of imported cargo arriving at the nation's ports (the export portion was ruled unconstitutional shortly after enactment). Recent years have actually seen large surpluses, so unlike with the Highway Trust Fund, the issue isn't user fees covering costs. Instead, the HMTF cross-subsidizes its ports, generating revenues from less costly to maintain ports to spend on more costly and sometimes less productive ports.

For instance, while the Port of Los Angeles generates immense user fees, it doesn't require as much dredging because of its close proximity to deep waters off coast. Instead, many of these fees are transferred to ports like the Port of Savannah, Georgia, which is further upriver and where regular dredging is necessary to enable bigger, deeper ships to enter the port. This robs the market of a useful economic signal: shippers don't notice that it is actually more expensive to ship to Savannah because Los Angeles (and other ports) subsidize its maintenance dredging. At the same time, ships coming into Los Angeles pay more than is needed to keep the Los Angeles port operating and up-to-date. A true and effective user pays principle would have Savannah shippers being charged sufficient fees to cover the costs of that port, while Los Angeles shippers and shipping lines cover their own. This way shippers could make the best economic decision when shipping their goods, and overtime goods would flow in and out of the most efficient places. These and other important reforms to the HMTF would improve incentives and better protect taxpayer money.[32]

Inland Waterways Trust Fund

Commercial navigation on the inland waterway system is heavily subsidized by taxpayers who pick up 90 percent of the system costs.[33] The inland waterway system is comprised of various locks, dams, and navigation features that allow commercial shipping on the nation's larger rivers.

The primary user contribution is per-gallon tax on diesel used for navigating the system. This revenue is placed in the Inland Waterways Trust Fund (IWTF) which

Towboat and Barges, Ohio River, Port of Louisville, KY

contributes to half of construction and major rehabilitation costs of dams and locks. Operations and maintenance, however, are paid entirely by taxpayers at a cost of hundreds of millions of dollars per year. Because operations and maintenance accounts significantly exceed other costs, taxpayers end up with the vast majority of the tab. Reasonable efforts to get better cost sharing from the commercial interests that use and profit off these subsidies have routinely met with stiff resistance.[34]

A variety of simple and proven methods could bring the IWTF into better alignment. A lock usage fee that fluctuates with demand would more efficiently move traffic through existing locks. Commercial shippers should also pay a greater percentage of the overall costs, restoring financial stability to IWTF and bringing cost sharing within this trust fund in better alignment with other parts of federal policy. High-use portions of the inland waterway system represent only 22 percent of the miles, but account for 76 percent of the cargo transported.[35] Put another way, with the Mississippi and Ohio River systems and Gulf-Intracoastal waterway carrying close to 90 percent of the tonnage transported on the inland waterways, we strongly suspect that if commercial shippers were asked to pay something closer to the true cost of shipping on inland waterways, they would find that certain waterways and dams were inefficient and could be phased out altogether which would lead to removing what doesn't work.

Airport and Airway Trust Fund

Another example of cross-subsidization takes place in the Airport and Airway Trust Fund (AATF). Funded from ticket taxes, jet fuel taxes, and others, it "finances Federal Aviation Administration (FAA) capital investments in the airport and airway system as well as supports FAA research and operations costs."[36] In FY2017, the AATF had over $15 billion in revenues, 67 percent of which came from the transportation of passengers.[37]

In 2018, the FAA tallied 378 primary airports, such as O'Hare in Chicago or JFK International in New York City. However, there are another 2,936 airports scattered across the country known as "nonprimary" airports that are considered part of the FAA's National Plan of Integrated Airport Systems, making them eligible for funding through the AATF.[37] These general aviation airports are used primarily by commercial interests, private jets, municipal services, hobbyists, and others. While most of the revenue into the AATF comes from the few hundred largest airports in the country, a disproportionate amount of airport improvement program grants go to these general aviation airports, cross-subsidizing their capital maintenance and development.[39] General and reliever airports received about 30 percent of airport improvement grants in FY2015 while likely generating substantially less than that share of the trust fund's revenue.[40]

This arrangement makes no sense for taxpayers and violates the user pays principle. Standard passenger airlines operate in an entirely different market from these general aviation airports. By taking user fees from the largest airports to fund improvements at the smallest airports, larger airports miss out on needed funds for maintenance and capital improvements. Meanwhile, the commercial interests, private jets, municipal services, hobbyists, and others who benefit from this network of nearly 3,000 general aviation airports do not bear the cost of their use.[41] From 2001 to 2009, at least $6.2 billion went to improving and fixing these general aviation airports.[42]

One partial way to improve the FAA would be to remove air traffic control (ATC) from the FAA's purview and set up a new funding structure for a non-profit corporation to undertake the task. While a recent proposal to accomplish this failed to be included in the last FAA reauthorization, the fact is the corporation could charge more true user fees such as ones based on type of aircraft,

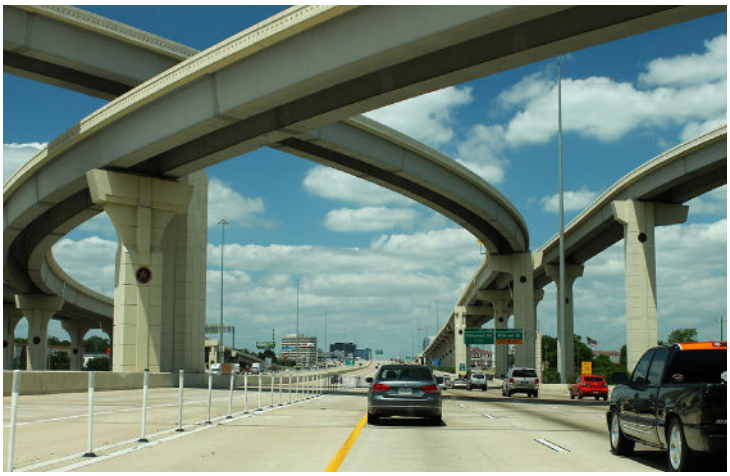
weight, and distance travelled. It would leave the business of managing air traffic control in a more nimble, private entity to modernize existing system so that the FAA could focus more completely on regulating safety in the system, clarifying the entity's mandate.

While the details of the final plan are important, this would be a good step toward bringing "user pays" to the ATC. Rather than constantly awaiting irregular and undependable funds from Congress, a non-profit ATC could directly levy the necessary fees to fund its operations. Not only could this bring much needed innovation to the ATC, we are also hopeful that a non-profit corporation could do a better job at bringing the air traffic control network into the 21st century with actual implementation of the NextGen project, something that was intended to be completed years ago.

The Government Accountability Office reviewed the intricacies of changing to a private ATC, specifically looking at similar transitions that took place in the UK, Canada, and New Zealand. The GAO concluded that, according to officials involved in other countries, "such a transition was not easy, but that generally the resulting system was a positive change."[43]

Rebuild Better and Smarter

Disasters provide an opportunity—a tragic one, but an opportunity nonetheless—to rebuild and restore communities and infrastructure in ways that make them less vulnerable to the inevitable future disasters. Reforms, including the Disaster Recovery Reform Act—included as part of the recently enacted FAA reauthorization—move slightly in the right direction to direct a small percentage of post-disaster funds to pre-disaster mitigation. They strengthen ties of funding to building codes and more resilient reconstruction and open the door to increased percentage of disaster assistance borne by the federal government.[44] The Wharton School Risk Management and Decision Processes Center documented that the federal share of disaster assistance has already risen dramatically—from less than 25 percent after Hurricane Hugo in 1989 to more than 75 percent after Superstorm Sandy in 2012.[45]



Interstate 10, Houston, TX

Instead, funding from the Federal Emergency Management Agency and others should be provided on a sliding scale for those communities that plan for such predictable events and follow through on rebuilds that include buyouts, mitigation, and elevation in logical ways. Rebuilding, the same way in the same place after disasters, wastes taxpayer funds.

Enormous amounts of federal funding go out the door post-disaster to rebuild public infrastructure. Programs such as Department of Housing and Urban Development's Community Development Block Grant – Disaster Recovery (CDBG-DR) and new mitigation assistance, should be permanently statutorily authorized and help communities rebuild in smarter and stronger ways. The CDBG-DR program received $28 billion in FY2018 alone, dwarfing the national regular CDBG program that received $3.3 billion.[46]

The Corps also receives large post-disaster supplemental funding. In FY2018, the agency was appropriated $17.4 billion for post-disaster civil works projects, far outstripping the $7 billion the Corps received in regular appropriations for the entire country. Between FY2005 and FY2018, the Corps received $45 billion in supplemental disaster funding compared to $23 billion in regular appropriations.[47] These funds should be oriented not just toward largely structural solutions, but creative ways to reduce risk that includes removing structures that provide inadequate protection or serve as little more than placebo protection.

Conclusion

Remove what doesn't work and then fix what does. Prioritize your project selection to get the best return, and ensure that those who use infrastructure pay for it whenever possible.

It's too easy for individual members of Congress to push for one more project for their home district or to seek terms slightly more favorable to someone other than the federal taxpayer. Without clear principles to guide any infrastructure package, taxpayers get hurt. These basic principles will go a long way toward setting sound rules of the road for any infrastructure package passed out of Congress in 2019.

Endnotes

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On the cover: *Construction of SR-99, Seattle, WA*

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Taxpayers for Common Sense is a national budget watchdog and independent taxpayer advocate dedicated to increasing transparency and exposing wasteful and corrupt government spending. Founded in 1995 as a 501(c)(3) organization, TCS believes the federal government should operate efficiently and live within its means.

Taxpayers promotes government spending decisions that reflect national priorities and encourages common sense solutions to complex policy problems.

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